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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/878,270	06/12/2001	Kenichi Miki	047912-0136	2988

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FOLEY AND LARDNER
 SUITE 500
 3000 K STREET NW
 WASHINGTON, DC 20007

EXAMINER

TORRES, JOSEPH D

ART UNIT PAPER NUMBER

2133

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

JK

Advisory Action

Application No.

09/878,270

Applicant(s)

MIKI, KENICHI

Examiner

Joseph D. Torres

Art Unit

2133

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 22 June 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☒ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____

Claim(s) objected to: _____

Claim(s) rejected: 1-11.

Claim(s) withdrawn from consideration: _____

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
10. ☐ Other: _____

Continuation of 5. does NOT place the application in condition for allowance because: See Final Rejection.

In addition; the Applicant contends, "If the Examiner maintains the rejection based on Flora, applicant respectfully requests that the Examiner provide a reference suggesting the feature of claim 1 where when one of the divided data items is damaged, that data item is repaired using the parity data and only the remaining ones of the divided data items". The Examiner presents Wicker (Stephen B. Wicker, Error Control Systems for Digital Communication and Storage, Prentice-Hall, 1995 pages 116-121 and 226-229). Stephen teaches a standard algorithm for check bit parity. Page 117 of Wicker teaches that stored data including "the remaining ones of the divided data items" are required for producing a syndrome. Step 8 on page 119 of Wicker teaches that the original code word is the difference between the error pattern and received data, hence data that is known damaged, also called erasures in the art, are not necessary for even necessary for correcting data. Page 229 of Wicker teaches an algorithm to simplify the standard algorithm where known erasures are ignored and "only the remaining ones of the divided data items" are used to increase the error correction capabilities of the standard error correction algorithm. The Error correction Algorithm in Flora requires no modification if the standard algorithm is used and requires minimal modification to use the erasure modification taught on page 229 of Wicker. Furthermore; the Examiner would like to point out that one of ordinary skill in the art at the time the invention was made would have recognized that it is useless to use known damaged data for error correction.

The Applicant contends, "the method of claim 12, even when cache failure occurs, the redundancy of the disk is maintained". The Examiner asserts that parity is redundant data and that there is no indication that any of the redundant data or parity is dropped in the Flora patent, hence the redundancy of the disk is maintained.

The Applicant contends, "If Flora were modified to have only one buffer containing the check bits, then the Flora system would include only a single check bit per word. In this case, it appears that the error checking capability of the Flora system would be drastically reduced, if it would work at all. Thus one skilled in the art would not modify Flora to allocate a single buffer for the check bits". Reducing the number of cache modules is still a valid alternative embodiment of the Flora patent and one of ordinary skill in the art at the time the invention was made would be highly motivated to consider such an option if one of ordinary skill in the art would have been interested in saving disk space.